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Maneesh Agrawala

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EXAMINER

NGUYEN, CAO H

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/758,574	<b>Applicant(s)</b> AGRAWALA ET AL.	
	<b>Examiner</b> Cao (Kevin) Nguyen	<b>Art Unit</b> 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 27 is not tangible. The preamble of independent claim 27 recites "A computer-implemented process for controlling a shared display, comprising using a computer to perform the following process actions", which is directed to software, per se, lacking any hardware to enable any functionality to be realized. The claimed features and elements of independent claim 27 does not include hardware components or features that are necessarily implemented in hardware. Therefore, the claimed features of claim 27 is actually a software, or at best, directed to an arrangement of software, and software claimed by itself, without being executed or implemented on a computer medium, is intangible.

To expedite a complete examination of the instant application, the claims rejected under 35U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of the applicant amending these claims to place them within the four statutory categories of invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al (US Patent Application Publication 2005/0066284) in view of Salesky et al. (US Patent Application Publication 6,343,313).

Regarding claims 1 and 28, Ho discloses a system for controlling a shared display, comprising: a general purpose computing device; and a computer program comprising program modules executable by the computing device, comprising a plurality of input modules each providing a different communication modality, and which collectively input information from multiple users, a logic module comprising an application running on the shared display which based on the user-inputted information generates display instructions and data pertaining to the running of said application [..MFS uses the MIDs/MODs to manage interface information such as field formats, field layouts, input devices, and the like. Because MFS manages the interface specific information, the MFS-based IMS application may focus on business logic that utilizes

the inputs and outputs; and the display module automatically selects MODs that are associated with a user-selected MID, the display module automatically selects the first logical page of a user-selected MID; see page 1, pars. 0010-0011 and page 2, pars 0018-0019], a layout module which based on the display instructions and data from the logic module generates layout instructions and packages data for display [..IMS application to perform transactions for end-users of different hardware device types, including terminals, desktop computers, workstations, and the like. Alternatively, MIDs/MODs may be defined to provide different layouts for data fields; The DIF/DOF respectively define characteristics about the specific input devices and output devices. The peripheral input devices and output devices associated with a type of end-user device type are referred to as device features see page 4, lines 0059-0060]. However, Ho fails to explicitly teach a display module which receives the layout instructions and data from the layout module and employs the same to display content on the shared display device.

Salesky discloses a display module which receives the layout instructions and data from the layout module and employs the same to display content on the shared display device; [..Conference server matches the form of the image to the attendee clients before sending it. Most computer screen images are represented as a bitmap of pixels whose layout is device-dependent. To be able to send images from one device to another, a transformation or transcoding is often required. The captured image information may be transcoded into a device-independent format for transmission and transcoded back to a device-dependent format for each attendee's screen; see page 5, pars 0065-0066]. It would have been obvious to one of an

ordinary skill in the art, having the teachings of Ho and Salesky before him at the time the invention was made, to modify the web service interface of Ho to include the computer conferencing system, as taught by Salesky. One would have been motivated to make such a combination in order to provide a shared image system rely on interception or communication of display or graphics system commands on depend on conferees' having similar hardware or software installations.

Regarding claim 2, Ho discloses wherein the computer program further comprises a translation module which takes the user-inputted information provided by the input modules and converts it into commands or requests that are recognizable to the logic module, whenever said user-inputted information is in a form not recognizable to the logic module [see page 1, pars 0006-0008].

Regarding claim 3, Ho discloses wherein each input module comprises a translation submodule which takes the user-inputted information input into that input module and converts it into commands or requests that are recognizable to the logic module [see page 5, pars. 0066-0067].

Regarding claim 4, Ho discloses wherein the logic module comprises a translation submodule which takes the user-inputted information provided by the input modules and converts it into commands or requests that are recognizable to the logic module [see page 3, pars. 0064-0065].

Regarding claim 5, Ho discloses wherein at least one of the input modules comprises an output sub-module which receives data from the logic module and outputs it to a user using the communication modality associated with the input module outputting the data [see page 1, pars. 0012-0013].

Regarding claim 6, Ho discloses wherein the user specifies in a message input into one of the input modules what data to output from the logic module and which input module having an output sub-module the data is to be output from [see page 7, pars. 0089-0090].

Regarding claim 7, Salesky discloses wherein the data output to the user is at least one of (i) an image file, (ii) a video file, (iii) an audio file, (iv) a document file, or (v) text; (see col. 3, lines 1-24).

Regarding claim 8, Salesky discloses wherein each input module comprises a timestamp sub-module which appends onto each message or a part thereof received from a user that is provided to the logic module, an indicator identifying the time the message was received, and wherein the logic module comprises a sub-module for scheduling each message or portion thereof received from the input modules to be processed by the logic module based on its timestamp (see col. 7, lines 56-65).

Regarding claim 9, Salesky discloses wherein each input module is in communication with each of the other input modules, and wherein each input module comprises a timestamp sub-module which appends onto each message or a part thereof received from a user that is

provided to the logic module, an indicator identifying the time the message was received, and wherein each input module comprises a sub-module for coordinating with the other input modules to provide each message or portion thereof to the logic module only after any message or part thereof received by another input module with an earlier timestamp has been provided to the logic module (see col. 15, lines 1-35).

Regarding claim 10, Salesky discloses wherein each input module comprises a timestamp sub-module which appends onto each message or a part thereof received from a user that is provided to the translation module, an indicator identifying the time the message was received, and wherein the translation module comprises a sub-module for queuing each message or portion thereof received from the input modules in an order based on its timestamp and providing the messages or parts thereof to the logic module in that order (see col. 8, lines 1-17 and figure 11).

Regarding claim 11, Salesky discloses wherein each input module is in communication with each of the other input modules, and wherein each input module comprises a timestamp sub-module which appends onto each message or a part thereof received from a user that is provided to the translation module, an indicator identifying the time the message was received, and wherein each input module comprises a sub-module for coordinating with the other input modules to provide each message or portion thereof to the translation module only after any message or part thereof received by another input module with an earlier timestamp has been provided to the translation module (see col. 19, lines 48-65 and figure 8A).



Regarding claim 12, Salesky discloses wherein the communication modalities associated with the input modules comprise at least two of (i) email, (ii) short message service (SMS) text messaging, (iii) instant messaging (IM), (iv) DTMF tones, (v) keyboard output signals, (vi) pointing device output signals, (vii) still camera output signals, (viii) video camera output signals and (ix) voice (see col. 14, lines 45-58).

Regarding claim 13, Ho discloses wherein the layout and display modules are generalized so as to support multiple different types of display devices [see page 3, pars. 0035-0036].

Regarding claim 14, Ho discloses wherein the layout and display modules are specialized so as to support a specific type of display device, and wherein the specialized layout and display modules are swappable with other specialized layout and display modules supporting other display device types such that the layout and display modules which support the type of display employed in the system are employed in lieu of other modules supporting other display device types (see page 5, pars. 0063-0064 and figure 2).

Regarding claim 15, Ho discloses wherein the translation, layout and display modules are generalized so as to support multiple swappable logic modules each representing a different application (see figures 6A-6B).

Regarding claim 16, Salesky discloses wherein the application associated with the logic module comprising one of (i) a computer game, (ii) an electronic bulletin board, (iii) a voting/polling tool, (iv) a web browsing tool, (v) a computer graphics program or (vi) a lottery tool (see col. 23, lines 1-33).

Regarding claim 17, Salesky discloses wherein the display instructions provided by the logic module comprise data priorities specifying which data is to be displayed whenever there is not enough space on the shared display to display all the data provided can be displayed (see col. 2, lines 29-53).

Regarding claim 18, Salesky discloses wherein the display instructions provided by the logic module comprise time limits specifying the length of time data displayed on the shared display is to remain displayed (see col. 3, lines 42-58).

Regarding claim 19, Salesky discloses wherein the display instructions provided by the logic module comprise hard and soft constraints pertaining to the way the data should be laid out on the shared display (see col. 9, lines 13-57).

Regarding claim 20, Salesky discloses wherein the input modules comprises sub-modules for parsing messages received from a user into discrete message units according to a prescribed parsing pattern; and forwarding only those message units to the logic module which are pre-designated as containing information useful to the application associated with the logic module (see col. 30, lines 3-46 and figure 11).

Regarding claim 21, Salesky discloses wherein said prescribed parsing plan is designed to separate out an indicator of the identity of the user contained in the message so as to form a message unit which is designated as the user's identity (see col. 29, lines 25-67).

Regarding claim 22, Salesky discloses wherein said prescribed parsing plan is designed to separate out text or characters representative thereof from the message and form one or more message units which are designated as user text data (see col. 34, lines 1-50).

Regarding claim 23, Salesky discloses wherein said prescribed parsing plan is designed to separate out an image from the message and form one or more message units which are designated as user image data (see figures 11-12).

Regarding claim 24, Salesky discloses wherein said prescribed parsing plan is designed to separate out video from the message and form one or more message units which are designated as user video data (see figure 8B).

Regarding claim 25, Salesky discloses wherein said prescribed parsing plan is designed to separate out audio from the message and form one or more message units which are designated as user audio data (see col. 23, lines 1-44).

Regarding claim 26, Salesky discloses wherein said prescribed parsing plan is designed to separate out a document file from the message and form one or more message units which are designated as user document data (see col. 30, lines 15-62).

Claim 27 differs from claim 1 in that “establishing multiple input modalities to input information from multiple users, wherein at least one of the input modalities is characterized by a latency greater than about 1.0 second; and inputting the user information from the multiple input modalities to a single computer program which employs the user information to control the content displayed on the shared display; as recited in Salesky (see col. 1, lines 18-

42). One would have been motivated to make such a combination in order to provide a shared image system rely on interception or communication of display or graphics system commands on depend on conferees' having similar hardware or software installations.

Claim 28 differs from claims 1 and 27 in that "a plurality of input modules each providing a different input modality at least one of which is characterized by a latency exceeding about 1 second, and which collectively input information from multiple users, an application module which receives the user information from the input modules and which based on the information generates display layout instructions and packages data for display, and a display module which receives the layout instructions and data from the application module and employs the information and data to display content on the shared display (see figures 9D-E).

Regarding claim 29, Salesky discloses wherein the application module comprises a sub-module for archiving user-inputted information (see figure 10A).

Regarding claim 30, Salesky discloses wherein the application module comprises a sub-module for archiving each unique screen shown on the shared display (see figure 15).

Regarding claim 31, Ho discloses wherein the application module comprises a sub-module for archiving the identity of each user inputting information to the system, as well as when the information was input and what information was input (see page 1, pars. 0010-0011).

Regarding claim 32, Ho discloses wherein at least one of the input modules comprises an output sub-module which receives data from the logic module and outputs it to a user using the

communication modality associated with the input module outputting the data in response to a user inputted request for the data (see figures 2-3).

As claims 33-38 are analyzed as previously discussed with respected to claims 1-9 above.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao (Kevin) Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571)272-4142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cao (Kevin) Nguyen  
Primary Examiner  
Art Unit 2173

11/20/07